EMBEDDED CAPACITORS USING CONDUCTOR FILLED VIAS

ABSTRACT

Embedded capacitors and a method for manufacturing the embedded capacitors. The method can include the steps of forming at least one bore (115) in a dielectric substrate (100). The dielectric substrate can be mechanically punched or laser cut to form the bore. The bore can be filled with a conductive material (250) to form a first electrode (470). A conductor (360) can be formed on the dielectric substrate, the conductor not being electrically continuous with the first electrode. A depth and/or cross sectional area of the bore can be selected to provide a desired amount of capacitive coupling between the electrode and the conductor. At least a second bore can be formed in the dielectric substrate and filled with a conductive material to form a second electrode. The second electrode can be electrically connected to the first electrode.